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EXAMINER
CRAIG, DWIN M

ART UNIT	PAPER NUMBER
2123	15

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Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No	Applicant(s)
Office Action Summary	09/496,563	ASKINS ET AL.
	Examiner	**Art Unit**
	Dwin M Craig	2123

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 May 2003* .

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-14* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-14* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____ .

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). *15, 16*
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

1.   Claims 1-14 have been presented for reconsideration.

Drawings

2.   The Examiner acknowledges the receipt of formal drawings.

Response to Arguments

3.   Applicant's arguments filed on 12 May 2003 have been fully considered. The Examiners

response is as follows:

3.1   Regarding Applicant's response to the Examiners objection to Claim 14.

The Applicant's have argued that,

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        Claim 14 is objected to. In particular, the Examiner states "wherein
the at least some of the" language in claim 14 is grammatically incorrect.
Applicant disagrees.

        In particular, the article "the" is employed after the word
"wherein" in order to match the usage of the phrase "at least some of the . .
." to the antecedent basis for this phrase in claim 11. Without the article
"the," it could be ambiguous whether the phrase in claim 14 is referring to
the same phrase in claim 11.

        If the Examiner continues to object to claim 14, then Applicant
respectfully requests the Examiner to suggest an amendment that would be
considered to correct the alleged informality.
```

The Examiner asserts that the following amendment, as requested by the Applicant, could

clarify the language of Claim 14.

--Where at least one or more of the service steps, which have been notified by the

node step, as disclosed in Claim 11, are associated with the object attributes represented by the

node image. --

3.2   Regarding Applicant's response to the 35 U.S.C. 103(a) rejections of Claims 1-14

by Willis et al. U.S. Patent 5,999,734 in view of Srivastava et al. U.S. Patent 5,752,034 and in

further view of Bigo et al. U.S. Patent 5,261,099.

Applicants have argued that:

> Claims 1-14 are rejected as being obvious. The Examiner employs
> Willis as a primary reference. The Examiner contends that Srivastava and Bigo
> disclose features not present in Willis. Finally, the Examiner contends that
> would be obvious to modify the Willis reference in view of Srivastava and
> Bigo.
>
> Applicant respectfully traverses the rejection. First, Applicant
> disagrees that the combination of disclosures yields what is claimed.
> Furthermore, Applicant disagrees that the Examiner has stated a proper
> motivation to combine the references. As a result, the Examiner has failed to
> meet the burden of making a prima facie case of obviousness.

The Examiner asserts that the motivation to combine, as stated in the office action,

clearly indicates that a skilled artisan would have a requirement to consider the technologies

disclosed in the *Srivastava et al., Willis et al. and Bigo et al.* references not only for the reasons

stated by to make an exhaustive determination of the current state of the art. The current high

pressure commercial environment in the information technology industry, with short

development schedules and high cost resources, motivates artisans to be knowledgeable as to

what technologies that have already been developed. No organization wants to expend precious

engineering resources, *"re-inventing the wheel"* and therefore the advantages, as disclosed in the

office action *(paper # 11)*, cannot be ignored because of the competitive market pressures that

exist in today's business environment. The Examiner has found applicants arguments in this

regard to be unpersuasive.

> We first address our disagreement that the combination of
> disclosures yields what is claimed. The Examiner indicates that Willis
> discloses "write queue computer readable program code means associated with
> each service program code means that queues write requests from the service

program code means to write determined simulated attributes to the object
database." The Examiner apparently considers the "compiler" disclosed by
Willis to be the "computer program product for use with a computer system to
execute a simulation" as recited in claim 1.

         If the Examiner considers the "compiler" disclosed by Willis to be
the "computer program product for use with a computer system to execute a
simulation" as recited in claim 1, then the cited "queues" are not part of
the simulation program at all. Rather, the cited "queues" are objects
representing queues in the program being compiled. See, e.g., col. 6, lines
44-60. The cited "queues" do not queue write requests from service program
code means to write determined simulated attributes to an object database.

The Examiner asserts that a compiler is a "computer program product", the Examiner

asserts the Microsoft® Corporation and Borland® Corporation have been selling compiler's as

computer program products for decades. As disclosed in the *Willis et al.* reference in figure 4

Item 46 there is a block labeled EXECUTE/SIMULATE and in Figure 10 there is Item 160. As

regards applicant's argument concerning the teaching of queues, the *Willis et al.* reference

discloses queues for writing code, the compiler has to be able to output the finished code for the

program and it is well known in the art that compilers and other programs write to files. As

noted by the Applicants the *Willis et al.* reference discloses queues *(Col. 6 Line 53).* The

Examiner has found Applicant's arguments as regards the *Willis et al.* reference to be

unpersuasive.

         With regard to Srinivasta, the Examiner alleges that Srinivasta
discloses, "Configured to collectively determine simulated attributes of
objects of an environment under simulated operation." However, perhaps
tellingly, the only portion of Srinivasta text cited by the Examiner does not
discuss "simulated attributes" or "simulated operation." The Examiner cites a
number of figures, but does not point to any particular figure that is
alleged to disclose or otherwise discuss "simulated attributes" or "simulated
operation."

The Examiner asserts that determining attributes of any object in an object oriented

environment is known in the art, *Srivastava et al.* Col. 6 lines 53-63. The Examiner has found

Applicant's arguments in regards to the *Srivastava et al.* reference to be unpersuasive.

Furthermore, Applicant also disagrees with the Examiner's
characterization of Bigo -that it discloses, "rate independent service
program code means." In the first place, the "service program code means"
recited in claim 1 are not just any "service program code means." Rather, the
"service program code means" recited in claim 1 are "configured to
collectively determine simulated attributes of objects of an environment
under simulated operation." The Examiner is not free to ignore this explicit
language. On the other hand, in Bigo, the "asynchronous tasks" are not
service program code means."

The Examiner asserts that the *Bigo et al.* reference discloses scheduling of microcode tasks Col.

2 Lines 38-46. The Examiner asserts that microcode is a form of service program code means.

The Examiner has found Applicant's arguments to be unpersuasive in regards to the *Bigo et al.*

reference.

In addition, "asynchronous" is not the same as "rate independent." To equate
these two concepts requires a comparison of apples to oranges. "Asynchronous"
implies that events are occurring at no particular rate (otherwise they would
be "synchronous"), while "rate independent" implies that events are happening
at particular rates, which rates are independent from each other.

The Examiner asserts that execution or activity that does not have an independent clock

reference is inherently asynchronous. The Examiner has found Applicant's arguments to be

unpersuasive in regards to the *Bigo et al.* reference.

Finally, Applicant respectfully submits that the Examiner's
statement of a motivation to combine does not meet the threshold required of
a prima facie obviousness rejection. In particular, assuming for the sake of
argument that Bigo discloses "how to transform computing overloads into a
computing load that is better partitioned over time without affecting too
much of the computing load of the processor" as alleged, this does not
translate into a motivation to modify Willis with the disclosure of Bigo. For
example, the Examiner has not pointed to any disclosure in Willis (or any
other disclosure) that "computing overloads" exist in the Willis system. As
another example, the Examiner has not shown that, even if there was
disclosure that such computing overloads exist in the Willis system, one
skilled in the art would realize that there would be a reasonable expectation
the proposed modification would be successful in addressing the computing
overloads.

The Examiner asserts that accommodating computing overloads is known in the art as disclosed in the *Bigo et al.* reference. The *Bigo et al.* reference discloses a scheduling mechanism that is used to avoid computing overloads, and the *Bigo et al.* reference discloses a method to transform computing activity in partitions to so that the highs and lows of processor utilization are smoothed out over time, thus allowing for a more efficient computing environment. The Examiner asserts that this is queue management which reads directly on Applicant's Claims and specification. The Examiner has found Applicant's arguments to be unpersuasive and uphold the earlier 35 U.S.C. 103(a) rejection of independent Claim 1.

In summary, it is respectfully submitted that the Examiner has resorted to picking and choosing various features, recited in the claims, from a number of references and cobbled them together in an attempt to allege a combination that yields what is claimed. As discussed in detail above, not only does the alleged combination not yield what is claimed, but also, the alleged motivation to combine the references does not support a prima facie obviousness rejection.

The Examiner asserts that the motivations were proper and that further explanation has been provided as to the reasons for rejecting Applicant's claims in view of the prior art. The Examiner asserts that all of the references sited, *Willis et al., Srivastava et al.* and *Bigo et al.* are all directed towards program execution or software development and management. The Examiner is obligated to site prior art references that read on the limitations of Applicant's claims. The Examiner respectfully asserts that Applicant's arguments have not, in the Examiner's opinion, overcome the prior art of record. The Examiner has found Applicant's arguments to be unpersuasive and therefore upholds the earlier 35 U.S.C. 103(a) rejections of independent Claim 1.

With specific respect to claim 8, the Examiner further alleges that a motivation to modify Willis in view of Srinvasta is that Srinivasta "discloses a method to reduce maintenance costs and information loss." As discussed above with respect to the alleged motivation to combine Willis and

Bigo, the alleged motivation to combine Willis and Srinivasta is also
deficient. This vague notion of reducing maintenance costs and information
loss set forth in Srinivasta not only does not suggest how once would go
about modifying Willis to achieve such reduction, but also, does not show
that the combination would provide a reasonable expectation of success in
achieving such reduction.

The Examiner asserts that there is a presumption that the invention disclosed in the

Srinivasta et al. reference does perform as disclosed and does successfully deliver the

improvements over the prior art as disclosed in the reference. The Examiner asserts that

Applicant has provided no factual argument as to why the *Srinivasta et al.* reference would not

provide the disclosed improvement. The Examiner asserts that in the information technology

area there is an inherently strong motivation to be aware of any significant technological

improvements so that any new product being brought to market could take advantage of these

improvements. The Examiner asserts that stopping data loss is a strong motivation to incorporate

ANY computing technology into a product. The Examiner has found applicant's arguments to be

unpersuasive and upholds the earlier 35 U.S.C. 103(a) rejection of Claim 1.

        With regard to claim 2, the Examiner alleges that Srivastava discloses
". . . writing the determined simulated attributes to the image; and to write
the determined simulated attributes of the object to the object database. .
." However, as discussed above, Srivastava does not even disclose a
simulation. The "source code" being preprocessed has nothing to do with a
simulated environment. Thus, Srivastava clearly cannot be considered to
disclose determining simulated attributes and "writing" the simulated
attributes to an image and to an object database.

The Examiner asserts that writing data to an object and reading data from an object are

known in the art. The Examiner has found Applicant's arguments to be unpersuasive and

maintains the earlier rejection of dependent Claim 2.

        With regard to claims 3 and 10, Applicant recognizes that pointers
in general are well known. Willis, for example, discloses, "updating a
pointer." However, there is nothing in Willis that discloses the claim
feature of associating an image of at least a portion of an object (relative
to a database of simulated attributes) by changing a pointer for the object
in the object database to point to the image.

The Examiner asserts that object methods returning pointers to specific data members of

an object is known in the art, as disclosed in the *Willis et al.* reference, and finds applicant's

arguments to be unpersuasive.

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        Regarding claims 4 and 11, the Srinivasta notification has nothing
to do with notification that an image is being associated with an object
database.

        Regarding claims 5 and 12, as with pointers and notification as
discussed above, a general description of "associative software hash tables"
does not describe "synchronizing" as set forth in these claims.

        Regarding claims 6 and 13, and claims 7 and 14, as above, the
general description in the cited references does not describe the features
set forth in these claims.
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The Examiner asserts that in regards to Claims 4, 5, 6, 7, 11, 12, 13 and 14 that the

Applicant has presented no factual basis to transverse Examiner's earlier rejection of these

Claims. The Examiner asserts that Applicant's objection is mere attorney argument.

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MPEP section 2145;

"2145     Consideration of Applicant's Rebuttal Arguments
I. ARGUMENT DOES NOT REPLACE EVIDENCE WHERE EVIDENCE IS
NECESSARY
Attorney argument is not evidence unless it is an admission, in which case,
an examiner may use the admission in making a rejection. See MPEP   § 2129 and
§  2144.03 for a discussion of admissions as prior art. The arguments of
counsel cannot take the place of evidence in the record. In re  Schulze, 346
F.2d 600, 602, 145 USPQ 716, 718 (CCPA 1965); In re Geisler, 116 F.3d 1465,
43 USPQ2d 1362 (Fed. Cir. 1997) ("An assertion of what seems to follow from
common experience is just attorney argument and not the kind of factual
evidence that is required to rebut a prima facie case of obviousness."). See
MPEP  § 716.01(c) for examples of attorney statements which are not evidence
and which must be supported by a appropriate affidavit or declaration."
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3.3   Regarding Applicant's response to the 35 U.S.C. 103(a) rejections of Claims 1

and 8 over Rompaey et al. U.S. Patent 5,870,588 in view of Ueno et al. U.S. Patent 5,301,331:

The Applicant has argued that:

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        Claims 1 and 8 are rejected as being obvious. The Examiner
contends that Rompaey and Ueon yield the subject matter of these claims and
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that one would be motivated to modify Rompaey in view of Ueno. Applicant
respectfully traverses the rejection.

First, it is not clear to which part of Rompaey the Examiner is referring as
disclosing a simulation generally. It appears that the Examiner references
fourteen figures of Rompaey as disclosing writing simulated attributes to an
object database. Where, as here, a cited reference is complex, the Examiner
is required to make specific citations to the references in support of a
rejection. Applicant can find nothing in the Rompaey reference that discloses
"services" as recited in the claims. Nor can applicant find anything in
Rompaey that discloses write queues or coherent views as recited in the
claims.

The Examiner asserts that simulation is disclosed in ITEM 9 in Figure 2. Queues are not

disclosed in the *Rompacy et al.* reference they are disclosed in the *Ueno et al.* reference Figures

11-13.

Furthermore, while the Examiner contends that Ueno discloses rate
independence, it appears that Ueno in fact discloses an interrupt system that
responds to asynchronous events. As discussed above, asynchronicity is not
the same as rate independence.

The Examiner asserts that interrupt handlers are a known method of handling

asynchronous events. The Examiner has found Applicants' arguments to be unpersuasive.

In any event, even if Rompaey disclosed all of the features of the
rejected claims except "rate independence" as recited in the claims, and Ueno
disclosed this feature missing from Rompaey, the Examiner's stated motivation
to combine is faulty. A disclosure of "a way to easily construct an interrupt
handler" in Ueno is hardly a motivation to modify Rompaey to include such an
interrupt handler. (As an aside, the concession by the Examiner that Ueno is
relied upon solely for a disclosure of an "interrupt handler" bolsters
Applicant's contention that Ueno fails to disclose the "rate independent"
feature recited in the rejected claims.) Why would a disclosure of a way "to
easily construct" something motivate one to include that something in a
particular system? One may be able to "easily construct" a paper airplane?
What would motivate one to include the easily constructed paper airplane as
part of a desk chair? The Examiner's stated motivation does not appropriate
contribute to a proper prima facie case of obviousness.

The Examiner asserts that the Applicant has presented no factual basis to transverse

Examiner's earlier rejection of these Claims. The Examiner asserts that Applicant's objection is

mere attorney argument.

MPEP section 2145;

"2145   Consideration of Applicant's Rebuttal Arguments
I. ARGUMENT DOES NOT REPLACE EVIDENCE WHERE EVIDENCE IS
NECESSARY
Attorney argument is not evidence unless it is an admission, in which case,
an examiner may use the admission in making a rejection. See MPEP § 2129 and
§ 2144.03 for a discussion of admissions as prior art. The arguments of
counsel cannot take the place of evidence in the record. In re Schulze, 346
F.2d 600, 602, 145 USPQ 716, 718 (CCPA 1965); In re Geisler, 116 F.3d 1465,
43 USPQ2d 1362 (Fed. Cir. 1997) ("An assertion of what seems to follow from
common experience is just attorney argument and not the kind of factual
evidence that is required to rebut a prima facie case of obviousness."). See
MPEP § 716.01(c) for examples of attorney statements which are not evidence
and which must be supported by a appropriate affidavit or declaration."

The Examiner asserts that the Applicant's has presented arguments that the rate independent feature is not a sufficient reason to combine the *Rompacy et al.* reference with the *Ueno et al.* reference, the Examiner asserts that an interrupt handling system is one the most common methods of handling asynchronous events in computer systems and that a skilled artisan would be motivated to use this disclosed method because it has been reduced to practice and is a known and robust method in the art to manage asynchronous events. The Examiner has found applicant's arguments to be unpersuasive and upholds the earlier 35 U.S.C. 103(a) rejections of independent Claims 1 and 8. However, because the limitation of the queuing was incorrectly rejected from the *Rompacy et al.* reference and not the *Ueno et al.* reference the Examiner will remove finality from this action.

Claim Objections

4.   **Claim 14** is objected to because of the following informalities: The Claim language contains the following grammatical error, "wherein the at least some of the", this section of the sentence on line 1 of **Claim 14** needs to be re-written. Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

5.   **Claims 1 -14** are being rejected under 35 U.S.C. 103(a) as being unpatentable over **Willis**

et al. U.S. Patent 5,999,734 in view of **Srivastava et al. U.S. Patent 5,752,034** and in further

view of **Bigo et al. U.S. Patent 5,261,099.**

5.1   As regards independent **Claims 1 and 8** the *Willis et al.* reference discloses a

computer program product for use with a computer system to execute a simulation, comprising:

a plurality of service computer readable program code means, **(Figures 4-7, 10 Item 46, Col. 4**

Lines 5-20) and Object Database **(Figure 4 Item 51, Figure 5-7& 9, Col. 12 Lines 29-45)**

computer readable program code means to access and operate upon object attributes, from the

object database, with which the service program code means is associated; write queue computer

readable program code means associated with each service program code means that queues

write requests from the service program code means to write determined simulated attributes to

the object database **(Col. 6 Lines 44-60, Col. 7 Lines 9-20, Col. 7 Lines 50-67, Col. 8 Lines 1-**

9, Col. 8 Lines 40-55); and node computer readable program code means that is coordinates

execution of the queued requests to cause the determined simulated attributes to be written to the

object database in a manner such that each service program code means has a coherent view of

all the object attributes **(Figure 8, Col. 7 Lines 33-51).**

The *Willis et al.* reference does not expressly disclose, the service program code means configured to collectively determine simulated attributes of objects of an environment under simulated operation, each service program code means associated with at least a subset of object attributes in an object database and each service program.

The *Srivastava et al.* reference discloses the service program code means configured to collectively determine simulated attributes of objects of an environment under simulated operation, each service program code means associated with at least a subset of object attributes in an object database and each service program **(Figures 2-8, Col. 2 Lines 23-30).**

It would have been obvious to one of ordinary skill in the art, at the time of the invention, to have modified the *Willis et al.* reference with the *Srivastava et al.* reference because *(motivation to combine)* the *Srivastava et al.* reference discloses a method to reduce maintenance costs and information loss *(Srivastava Col. 5 Lines 49-50).*

The *Willis et al.* reference does not expressly disclose that each service program code means executing at a rate independent of the other service program code means.

The *Bigo et al.* reference discloses that each service program code means executing at a rate independent of the other service program code means **(Figures 3-8, Col. 9 Lines 17-67)**.

It would have been obvious for one of ordinary skill in the art, at the time of the invention, to have modified the *Willis et al.* reference with the *Bigo et al.* reference because *(motivation to combine)* the *Bigo et al.* reference teaches how to transform transient computing overloads into a computing load that is better partitioned over the time without affecting too much the computing load of the processor *(Bigo et al. Col. 2 Lines 43-46).*

5.1.1   As regards independent **Claim 8** the *Srivastava et al.* reference discloses a

computer system **(Figure 1).**

It would have been obvious to one of ordinary skill in the art, at the time of the

invention, to have modified the *Willis et al.* reference with the *Srivastava et al.* reference because

(motivation to combine) the *Srivastava et al.* reference discloses a method to reduce maintenance

costs and information loss *(Srivastava Col. 5 Lines 49-50).*

5.2   As regards **Claims 2 and 9** the *Willis et al.* reference does not expressly disclose a

copy constructor.

The *Srivastava et al.* reference discloses the node program code means includes

computer readable program code means for creating an image of at least a portion of an object

whose attribute is to be written to the object database and for writing the determined simulated

attributes to the image; and to write the determined simulated attributes of the object to the object

database, the node program code means associates the image with the object database **(Figure 7,**

Col. 6 Lines 16-65).

It would have been obvious to one of ordinary skill in the art, at the time of the

invention, to have modified the *Willis et al.* reference with the *Srivastava et al.* reference because

(motivation to combine) the *Srivastava et al.* reference discloses a method to reduce maintenance

costs and information loss *(Srivastava Col. 5 Lines 49-50).*

5.3   As regards **Claims 3 and 10** the *Willis et al.* reference does disclose updating a

pointer **(Col. 11, Lines 29-42).**

5.4   As regards **Claims 4 and 11** the *Willis et al.* reference does not expressly disclose

notification.

The *Srivastava et al.* reference discloses notification **(Col. 24 Lines 49-67).**

It would have been obvious to one of ordinary skill in the art, at the time of the invention, to have modified the *Willis et al.* reference with the *Srivastava et al.* reference because *(motivation to combine)* the *Srivastava et al.* reference discloses a method to reduce maintenance costs and information loss *(Srivastava Col. 5 Lines 49-50).*

5.5   As regards **Claims 5 and 12** the *Willis et al.* reference discloses associative software hash tables **(Figure 9 and Col. 12 Lines 10-22).**

5.6   As regards **Claims 6 and 13** the *Willis et al.* reference discloses writing to the objects at the write node **(Figures 7 and 8 and Col. 11 Lines 63-67, Col. 12 Lines 1-9).**

5.7   As regards **Claims 7 and 14** the *Willis et al.* reference does not expressly disclose notification.

The *Srivastava et al.* reference discloses notification **(Col. 24 Lines 49-67).**

It would have been obvious to one of ordinary skill in the art, at the time of the invention, to have modified the *Willis et al.* reference with the *Srivastava et al.* reference because *(motivation to combine)* the *Srivastava et al.* reference discloses a method to reduce maintenance costs and information loss *(Srivastava Col. 5 Lines 49-50).*

6.   Claims 1 and 8 are being rejected under 35 U.S.C. 103(a) as being unpatentable over **Rompaey et al. U.S. Patent 5,870,588** in view of **Ueno et al. U.S. Patent 5,301,331.**

6.1   As regards **Claims 1 and 8** the *Rompaey et al.* reference discloses a computer program product for use with a computer system to execute a simulation, comprising: a plurality of service computer readable program code means **(Figures 1-3)** and Object Database **(Figure**

18, item 186, Col. 31 Lines 4-10) computer readable program code means to access and operate

upon object attributes, from the object database, with which the service program code means is

associated; write queue computer readable program code means associated with each service

program code means that writes simulated attributes to the object database **(Figures 1-14)**; and

node computer readable program code means that is coordinates execution of the queued

requests to cause the determined simulated attributes to be written to the object database in a

manner such that each service program code means has a coherent view of all the object

attributes *(Col. 7 Lines 31-67, Col. 8 Lines 1-4).*

      The *Rompaey et al.* reference does not expressly disclose that each service

program code means executing at a rate independent of the other service program code means

and the use of queues.

      The *Ueno et al.* reference discloses that each service program code means

executing at a rate independent of the other service program code means **(Figures 1-17, Col. 21**

Lines 42-67, Col. 22 Lines 1-8) and queues **(Figures 11-13).**

      It would have been obvious to one of ordinary skill in the art, at the time of the

invention, to have modified the *Rompaey et al.* with the *Ueno et al.* reference because

(motivation to combine) the *Ueno et al.* reference discloses a way to easily construct an interrupt

handler *(Ueno et al. Col. 3 Lines 65-67, Col. 4 Lines 1-2).* Further, an interrupt handling system

is one the most common methods of handling asynchronous events in computer systems and that

a skilled artisan would be motivated to use this disclosed method because it has been reduced to

practice and is a known and robust method in the art to manage asynchronous events.

Conclusion

7.   Applicant has presented **Claims 1-14** for reconsideration. The Examiner has rejected

Claims 1-14. However, because the original rejections of independent Claims 1 and 8 were

withdrawn and a new rejection with those references has been applied, this action is made **NON-**

FINAL.

7.1   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Dwin M Craig whose telephone number is 703 305-7150. The

examiner can normally be reached on 9:00 - 5:00 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Kevin Teska can be reached on 703 305-9704. The fax phone numbers for the

organization where this application or proceeding is assigned are (703) 746-7239 for regular

communications and (703) 746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding

should be directed to the receptionist whose telephone number is 703 305-3900.

DMC
July 25, 2003